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Angular speed sensor and its application to a combined torque and angular speed sensor for a motor vehicle steering column

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Abstract of **FR2602872**

This angular speed sensor comprises two coaxial discs 10, 11 which are electrically insulating and integral in rotation with respective members 1, 3 whose relative angular speed is to be measured. Each disc carries on one of its faces a detection winding consisting of an even number of conducting coils in the form of spiral sectors wound alternately in one direction and the other, and whose mutual inductance varies as a function of the relative angular position of the said discs. The sensor also comprises a supply circuit 16 applying a high-frequency AC voltage to one of the windings, and a circuit 17 for processing the signal collected at the terminals of the other winding. The processing circuit 17 is a demodulator which converts the said signal, which is amplitude-modulated, into an output signal with frequency directly proportional to the relative angular speed of the said members 1, 3. Application to measuring the angular speed of a steering shaft.